Nutrition News

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FOOD VIA THE QUARTERMASTER GENERAL

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Everything our troops need to keep fit for military duty is supplied to them by the Office of the Quartermaster General, Department of the Army.

The air force and navy also receive the benefit of this service to some extent. The potential battlefield may be anywhere between the equator and the poles. It may be on a palm-fringed beach or the highest of snow capped mountains, on the arid desert or in the steaming jungle.

In the Quartermaster General's Office is the Subsistence Branch of the Supply Division. Its mission is to procure and distribute all food that goes to the army in this country and in every part of the world where an American soldier is stationed. Such responsibility involves a multitude of plans.

Amounts Determined

Many months before it is due to go to the soldier, amounts of each food needed must be determined. This involves carefully calculating the number of soldiers overseas in relation to their locations and the conditions under which they are living. Plans must be included for feeding civilian laborers hired by the army to build roads, repair air fields, and service army equipment in the far-flung places of the globe.

All this careful procurement is carried through when each food is most abundant in the American market. Thus the army gets highest quality at lowest price and drives a shrewd bargain with the taxpayer's dollar.

Foods purchased are distributed to the various Quartermaster depots all over the United States. From there supplies are directed in steady streams to army posts, or to railheads and then to ports for shipment overseas.

Once overseas, the supplies are delivered by whatever local transportation is available. Canal barges of the Rhine, pack mules of the Apennines, and snowmobile of the Arctic all carry food safely to the troops.

Food He's Used To

No matter how far the American soldier gets from the corner grocery store, the Quartermaster General's Office sees that he gets three of the same kind of meals he got every day at home. To make sure of it, they supply even the most distant outpost with such things as ice cream making machinery when it's not available locally. Bakery equipment with ingredients for the finest American bread follow the soldier wherever he goes, too.

Other Tasks

The Subsistence Branch has its full quota of other responsibilities. Perhaps the task next most important to giving the soldier food of the kind he would have had at home in this country is supplying basic food items for civilian populations in liberated and occupied areas. Few people know even now that just off the beaches, close on the heels of the invasion waves, were American ships loaded with food for civilians left in the wake of advancing allied armies.

Since the surrender the army has had first responsibilities for feeding civilian populations in conquered countries. Our government determines what

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the level of consumption should be among these peoples. The army buys and delivers enough food in addition to that produced locally to fill the United States obligations.

New Products

Planning food buying, the Office of the Quartermaster General must always consider new products on the market. In all cases the new product must be carefully appraised to make sure it is acceptable to the American soldier and meets military requirements.

The Quartermaster General, finally, must be ready not only to deliver food to American soldiers and the people under their care, but to provide subsistence to other allied armies. This involves being constantly prepared to review, evaluate, and develop ration scales for any group of people from the Fiji Islanders to the Scotch Highlanders.

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Glances AT NUTRITION RESEARCH

Growing interest in the relationship between food and nutritional well-being is evident everywhere today. Research abstracts in this issue are concerned particularly with proper diet for healthy teeth and well-being in old age.

Food Habits of Older Women — In a study of three groups of older women, the most outstanding diet characteristic noted was a relatively low calorie intake. All consumed 300 to 500 calories less than average younger women. Those in poor health ate still less. Ten women selected for their vitality consumed more milk, citrus fruits, wholegrain cereals, and eggs than the other women.

—J. Am. Diet. Assn. 24 :286 (April) 1948.

Dietary Balance and Age — The nitrogen and calcium requirements of older women are reported for the first time. In vigorous women the nitrogen metabolism is the same as for younger adults. Nitrogen needs may be met by present dietary standards. Calcium requirements of healthy older women may be higher than previously thought. The findings on phosphorus needs were inconclusive.

—J. Am. Diet. Assn. 24 :292 (April) 1948.

Fluid Diet and Teeth — Dental decay can be decreased by a liquid diet according to the latest results of a series of studies on dental caries in the cotton rat. Animals fed a diet of fresh whole milk were observed previously to have no caries at all. Rats fed the milk in dry form developed some dental caries. But when it was reconstituted and fed in a liquid form, caries scores were reduced to nearly zero again. All rats on milk diets showed less decay than those on the control ration. When the control diet was fed in liquid form, caries scores were lower than on the usual control ration.

—J. Nutrition 35 :371 (March) 1948.

Fluorides and Dental Decay—Children who begin drinking fluoride water in childhood obtain some protection against dental caries, but have more decay than children born and reared in an area where they consume water containing 1 to 2 parts per million of fluoride. The protection against caries afforded by the fluoride water is determined by age and length of exposure to the fluoride water. Even for lifetime residents, however, tooth decay is reduced by only about one-third in the lower molar teeth which are afforded less protection than are front teeth.

—Pub. Health Rep. 63 :563 (April) 1948.

Value of Cereal Proteins — How the protein in oats, wheat, and corn is affected by processing is the subject of a recent research report. Using human subjects, the studies compared the quality of protein in breakfast cereals with that in the unprocessed grains. Results indicate refining treatment has no significant effect on the nutritive value of oats and corn protein. However, processing decreases the nutritive value of the protein in wheat cereals.

—J. Nutrition 35 :651 (June) 1948.

TIMELY TOPICS

Miss Ebbs

Miss Jane Cotton Ebbs, author of this issue's lead article has held six major posts with branches of the government and the military. Included are these: leader, Food Mission of Home Economists to Germany; dietary consultant, Office Military Governor to Germany (U. S.); and chief of menu planning, Office of The Quartermaster General. Miss Ebbs did advanced work in nutrition at the University of Chicago. She has published reports of her research on the vitamin A requirement of young adults.

U. S. Ratifies WHO

In May the United States and four other nations ratified the World Health Organization's constitution, bringing total membership to forty-three. With this action our country officially joins the program for international disease prevention and treatment, a plan to make man everywhere healthy and free from fear of disease.

Dietary Allowances

The Food and Nutrition Board of the National Research Council has recently revised the Recommended Dietary Allowances. In brief the changes include: moderate reduction in calorie levels; increase in the calcium allowance for adults from 0.8 to 1.00 gram per day; slight decreases in thiamine at certain age and activity levels; minor changes in riboflavin as a result of basing calculations on body weight instead of calorie intake.

NUTRITION SURVEY AMONG ALASKAN ESKIMOS SHOWS DIET HABITS ARE DETERIORATING

By Christine A. Heller, Nutrition Consultant
Territorial Department of Health, Juneau, Alaska

Finding out what Eskimos eat and how it affects their health was the job of a research team which conducted a nutrition survey in Alaska.

The study got underway in the spring of 1947 under a grant from the United States Public Health Service and funds from the Alaska Territorial Department of Health. Members of the survey team were Carroll F. Shukers, M.D., medical nutritionist, John E. Totter, Ph. D., biochemist, both from the University of Arkansas Medical School, and the author.

The team visited six villages, two in the Bering Sea area and four above the Arctic Circle. We were specifically interested in the possible relationship of diet to certain recurring eye ailments among the Eskimos.

Shows Variation

The dietary reports completed for four of the villages show a wide variation in the intake of almost all nutrients for all age groups. Vitamin C is the outstanding dietary shortage, and many diets had no apparent source.

No scurvy was observed among the Eskimos, but in blood plasma tests eighty-one percent showed poor ascorbic acid levels. Thirty-one percent of these gave no evidence of ascorbic acid in the blood.

Cloudberries, the tender shoots and leaves of certain willows, and other wild and edible greens are high in ascorbic acid. These foods were once used in quantities, but the Eskimos no longer eat them. Our educational activities need to be directed toward a wider use of these and other native foods.

Vitamin A Shortage

Shortage of vitamin A is also a dietary problem, but there is less reason for this deficiency. Most of the foods rich in vitamin C are available only during the short, Arctic summer. But vitamin A foods are usually available around the calendar. Seal oil, one of the mainstays of the Eskimo diet, is a good source of both vitamin A and D. Dried meat and fish are dipped in seal oil before they are eaten. Dried meat, fish, berries, and wild greens are often mixed with seal oil and then stored for winter use. Kegs and small barrels are used for storing these foods, but many Eskimos still use the seal poke (outer skin of the seal left intact). These containers are put in ice cellars or dugouts in the frozen tundra. The Eskimo was probably the first to preserve food by freezing.

Tomcod Liver

Fish liver is high in vitamin A. Tomcod and other fish are obtained through the ice all winter long in many places. Eskimos in the Unalakleet area used to boil the tomcod livers and skim off the oil. This oil was fed to the babies, but practices of this kind are rapidly being cast aside. Instead of eating the tomcod livers themselves, Eskimos toss them to the dogs. Seal liver, however, is never thrown away. It is a real delicacy, even to white men.

Only two cases of rickets were observed by the medical nutritionist. The large amounts of seafoods in the diet probably accounts for this happy finding.

Eskimos used to have beautiful teeth, but now it's unusual to find a perfect set of teeth. The dietary is probably responsible for both baby and permanent teeth being extremely subject to dental decay.

White Man's Diet

Contact with the white man has brought about many changes in food habits. As often happens, the best of the native diet is cast aside and the less desirable of the foreign is adopted.

The Eskimo economy is still one of hunting and fishing. Money is available only in small amounts for the majority and then just seasonally. Therefore, only limited amounts and kinds of foods are available for purchase. Most Eskimos must still get the bulk of their food from the sea, the rivers, and the tundra. A wise use of native foods seems to be the only practical solution to existing dietary shortages.

GROWING IN WISDOM AND STATURE THROUGH SCHOOL LUNCH EXPERIENCES

By Thelma G. Flanagan, Supervisor, School Lunch Program
State of Florida, Department of Education

The Sunshine School has been organized as "The State of Happiness." Classrooms are named, "Friendlyville," "Workville," "Healthville," "Contentville," etc. The cafeteria is the "Filling Station." A sign shows the price of "Gas" (lunch), "Oil" (milk). At noon a member of the "sanitary committee" in each town gives each child a paper towel as he goes to the washroom before reporting to the "Filling Station." Weekly town meetings are held in each town. There the children freely discuss behavior problems and plan for more effective use of the school day, including school lunch integration activities.

Such programs do not just happen. Maximum benefits take place only in the schools where there are teachers with vision and where there are adequate school lunch programs.

As county workshops have provided in-service training for teachers and school lunch personnel, both groups have begun to think of the educational values of the school lunch program. Teachers have asked for help in integrating their classroom teaching with the school lunch program. The outgrowth of this demand has been the writing of a bulletin tentatively entitled "Growing in Wisdom and Stature through School Lunch Experiences."

A New Bulletin

How can classroom teaching spill over into the school lunch department? Is our school lunch department doing all that it can for our school and our community or are we still "missing the boat" when it comes to maximum benefits? What type of teaching makes Johnny want to learn about food? These questions and many more are answered in this bulletin. The relative-

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DID YOU KNOW ?

—that green walnuts are a good source of vitamin C?

—that a new plastic coating for eggs will keep them fresh outside the refrigerator for a year?

—that spaghetti, usually credited to Italy, originated in China?

—that a butter patty machine can cut, emboss, and wrap 1,000 pounds of individual pats per hour?

—that you must never put bananas in the refrigerator because the starch can't change to sugar to make them sweet?

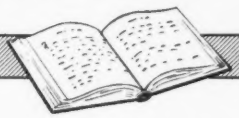
—that sweetened, condensed whey will whip almost like egg white and is good for icings and toppings?

—that milk sugar, lactose, is used to grow higher yields of penicillin?

—that cheese slices more easily if you heat the knife slightly before cutting the cheese?

—that vinegar can be made from whey?

THINGS YOU'LL LIKE TO READ



Teachers, working with children of any grade level, will find a practical aid in **Appraising Food Habits** by Floy Eugenia Whitehead. (Baton Rouge, La.: Bureau of Educational Materials, Statistics, and Research. 1948.) The bulletin includes a device for appraising food habits; suggests ways of using such appraisals in a community nutrition program; presents a selected list of nutrition education materials.

A study guide, Beeuwkes and Hanlon's **Nutrition and the Public Health** (Ann Arbor, Michigan: The Overbeck Company. 1947. $2.50) presents the student of public health with a framework of the basic knowledge needed to appreciate the relation of nutrition to total health. A comprehensive collection of teaching materials and films for the different grade levels are listed and evaluated.

McCollum and Becker present a timely revision of their **Food, Nutrition and Health.** (6th Edition. Baltimore: McCollum and Becker. 1947. $2.00.) Subject matter is brief but comprehensive; style is direct and authoritative. Its objective is to give established facts of nutrition in nontechnical language and to show what can and cannot be accomplished through diet. A practical diet plan and suggested menus are included.

A revision of Miriam E. Lowenberg's pamphlet on **Food for Young Children in Group Care** (Washington: U. S. Children's Bureau Pub. No. 285. Revised 1947. 15 cents) is now available. It is planned especially to aid persons responsible for the feeding of young children in groups. It covers meal planning for children and the child's eating habits. The food groups are discussed from the angle of buying and preparation. Economical seasonal menus for group feeding are suggested. The author gives tips on service for children and supplies a list of references.

GROWING IN WISDOM AND STATURE THROUGH SCHOOL LUNCH EXPERIENCES

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ly new field—that of school lunch integration is covered in detail. School lunch is now coming out of the basement and is taking its place as a laboratory for teaching. "Teaching what?" might be asked. The school lunch is the everyday living type of teaching where children see that their school practices what it preaches! In the school lunch department children learn about nutrition. Here habits are formed which will guide the child all of his life.

The bulletin also treats the effect of emotional upsets on eating. Children and teachers alike must enjoy eating in the school lunch dining room.

Another section of the bulletin shows teachers how to help the little Marys and Johnnys spiritually, aesthetically, and socially become finer adults. Children learn about citizenship while they stand in line and while they help to keep the dining room tidy by carrying their used trays to be washed. Here is also ample opportunity for artistic development.

The bulletin suggests activities whereby our children may learn in the classroom about the Florida foods eaten in the school lunch departments. This type of study leads to a discussion of what foods are grown in each community. How many fathers are in the foods industry? What do they do?

Mathematics comes in for its share of the limelight, too. Using the records and reports necessary in order to present a practical problem, this type of study forms a springboard for problems such as: the amount of money designated for the lunches, family budgets, etc. Other new and exciting aspects of the school lunch program are also treated such as: learning to eat around the world, around the calendar with school lunch and the relationship of school lunch to vocational guidance, art and music.

The first draft of the bulletin is completed. Copies will not be available for distribution until early winter. Much ground work still needs to be done but we hope that eventually every boy and every girl who has access to a school lunch department may indeed, grow in wisdom and stature through their experiences there.